Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed December 17, 2009.

I. Summary of Examiner's Rejections

Prior to the Office Action mailed December 17, 2009, Claims 12-20, 22-29 and 31-33 were pending in the Application. In the Office Action, Claims 12-20, 22-29 and 31-33 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 12-20, 22-29 and 31-32 were rejected under 103(a) as being unpatentable over Fujita (U.S. Patent No. 6,411,985, hereinafter Fujita) in view of Connor (U.S. Patent No. 6,865,549, hereinafter Connor) and further in view of Orton et al. (U.S. Patent No. 5,465,363, hereinafter Orton). Claim 33 was rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita, in view of Connor and further in view of Orton, and further in view of Kuftedjian (U.S. Patent No. 6,105,057, hereinafter Kuftedjian).

II. Summary of Applicant's Amendment

The present Reply amends Claims 12, 14, 22, 24, 27, 31, cancels Claims 13, 16, 23, 25, and adds new Claim 34, leaving for the Examiner's present consideration Claims 12, 14-15, 17-20, 22, 24, 26-29 and 31-34.

III. Claim Rejections under 35 U.S.C. § 112

In the Office Action, Claims 12-20, 22-29 and 31-33 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Accordingly, Claims 12, 22 and 31 have been amended as shown above. Applicant respectfully submits that the claims, as amended, conform to the requirements of 35 U.S.C. 112, second paragraph. Reconsideration thereof is respectfully requested.

IV. Claim Rejections under 35 U.S.C. § 103(a)

Claims 12-20, 22-29 and 31-32 were rejected under 103(a) as being unpatentable over Fujita in view of Connor and further in view of Orton. Claim 33 was rejected under 35 U.S.C.

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103(a) as being unpatentable over Fujita, in view of Connor and further in view of Orton, and further in view of Kuftedjian.

Claim 12

Claim 12 has been amended to recite as follows.

12. (Currently Amended)   A   system   for   interleaving   resource   enlistment synchronization, comprising:

an application server with a plurality of threads, running on one or more processors;

a plurality of resource objects, wherein each resource object is wrapped with a wrapper object in a collection of wrapper objects;

a transaction manager that manages a plurality of transactions, wherein each transaction is associated with at least one said thread, wherein the transaction manager maintains the collection of wrapper objects to manage resource object enlistment requests from different said threads associated with different transactions;

wherein, after the transaction manager receives a request from a thread of the plurality of threads to enlist a resource object of the plurality of resource objects in a transaction, the transaction manager

first checks to see if there is a lock being held on the resource object by another thread in another transaction,

if there is a lock, allow the thread to wait and signal the thread once the lock is freed by the another thread in another transaction,

if there is no lock, grants a lock to an accessor associated with the thread and holds the lock until an owner of the thread delists the resource object.

Fujita discloses that an interserver data association apparatus that makes data association with respect to a plurality of reception servers based on data transmitted from one transmission server (Abstract). Fujita further discloses a table that defines a resource identifier for determining the type of transaction information in the transmission server and the reception servers, and a resource identifier for determining the type of resource in the destination servers (Figure 23, Column 24, lines 4-13).

However, the transmission server in Fujita does not manage a plurality of transactions, wherein each of the plurality of transactions is associated with at least one said thread. Furthermore, the transmission server in Fujita does not perform the additional steps of checking to see if there is a lock being held on the resource object by another thread in another transaction and acting correspondently.

Hence, Applicant respectfully submits that the transmission server, in Fujita, does not reassemble the transaction manager, as embodied in Claim 12.

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Additionally, the table in Fujita contains resource identifier information that indicates "which transaction information should be transferred to which server" (Column 24, Lines 8-10).

However, the transaction manager, as embodied in Claim 12, maintains the collection of wrapper objects to manage resource object enlistment requests from different said threads associated with different transactions.

Applicant respectfully submits that the table in Fujita does not contain a collection of wrapper objects to manage resource object enlistment requests from different threads associated with different transactions.

Furthermore, Connor discloses concurrency control for a policy based management system that controls resources in a distributed computing system (Abstract). Connor further discloses controller ID/lease object pairs that have been issued to registered controllers (Figure 3, and Column 5, Lines 22-28).

However, the controller in Connor is not transactional, and there is no indication in Connor that the mapping data structure maintained by the controller service is related to different transactions and is maintained by a transaction manager, as embodied in claim 12.

Orton discloses a view system which supports a mechanism to provide a multitask-safe wrapper for objects that are not multitask-safe (abstract).

Applicant respectfully submits that there is no indication in Orton that either the multitask-safe wrapper or the objects that are not multitask-safe are involved in transactions and are maintained by a transaction manager.

In view of the above comments, Applicant respectfully submits that Claim 12, as amended, is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 22 and 31

The comments provided above with regard to Claims 22 and 31 are herein incorporated by reference. Claims 22 and 31 have been amended in a manner similar to Claim 12. Applicant respectfully submits that Claims 22 and 31, as amended, are likewise neither anticipated by, nor obvious in view of the cited references, when considered alone or in combination. Reconsideration thereof is respectfully requested.

Claim 32

Claim 32 is allowable as depending from an allowable independent claim 12, and further in view of the comments provided above.

Additionally, Claim 32 includes a feature of *"wherein the wrapper object is periodically garbage collected to clear state and unused locks."*

Applicant respectfully submits that is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 14-15, 17-20, 24, 26-29 and 32-33

Claims 14-15, 17-20, 24, 26-29 and 32-33 are not addressed separately, but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim, and further in view of the comments provided above.

It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant respectfully reserves the right to argue these limitations should it become necessary in the future.

IV.   Additional Amendments

Claim 34 has been newly added by the present Reply. Applicant respectfully requests that new Claims 34 be included in the Application and considered therewith.

V.   Conclusion

In view of the above amendments and remarks, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: __March 3, 2010__   By: ___/Kuiran (Ted) Liu/_____
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